

IN THE CLAIMS

Please amend the claims as follows:

1. (Original): A retransmission control method for a multicast information distribution service which distributes multicast information with respect to a plurality of wireless terminals within a service area from an information distribution apparatus via a wireless region, comprising the steps of:

(a) transmitting a retransmission request for information which requires retransmission, from an arbitrary wireless terminal to the information distribution apparatus, at a timing determined by the wireless terminal when the information which requires retransmission is generated;

(b) after receiving the retransmission request for the information from the arbitrary wireless terminal within the service area, notifying retransmission information indicating the information requested by the retransmission request with respect to each of the wireless terminals within the service area from the information distribution apparatus, and retransmitting the information requested by the retransmission request from the information distribution apparatus at a predetermined timing; and

(c) making no retransmission request for the information from each of the wireless terminals if the retransmission information is received by each of the wireless terminals before the predetermined timing, so that each of the wireless terminals receives the information retransmitted from the information distribution apparatus at the predetermined timing.

2. (Original) The retransmission control method for the multicast information distribution service as claimed in claim 1, further comprising the step of:

(d) intensively managing in the information distribution apparatus retransmission requests for the same information made with respect to the same multicast information distribution service until the predetermined timing, and retransmitting from the information distribution apparatus information related to intensively managed retransmission requests at the predetermined timing.

3. (Currently Amended): The retransmission control method for the multicast information distribution service as claimed in claim 1, further comprising the steps of:

(d) including information ~~related to~~ indicating the predetermined timing at which the information requested by the retransmission request is will be retransmitted in the retransmission information, and notifying each of the wireless terminals within the service area from the information distribution apparatus information related to a transmission channel and a transmission timing for notifying the retransmission information and information related to a transmission channel for retransmitting the information requested by the retransmission request; and

(e) receiving the retransmission information by each of the wireless terminals within the service area based on the information which is received from the information distribution apparatus and is related to the transmission channel and the transmission timing for notifying the retransmission information, and receiving the information retransmitted from the information distribution apparatus based on the information related to the transmission channel for retransmitting the information and the information related to the predetermined timing included in the retransmission information which are received from the information distribution apparatus.

4. (Original): The retransmission control method for the multicast information distribution service as claimed in claim 1, further comprising the step of:

(d) managing the information requested by the retransmission request in categories according to a predetermined rule, and managing timings for retransmitting the information for each of the categories, in the information distribution apparatus.

5. (Original) The retransmission control method for the multicast information distribution service as claimed in claim 1, further comprising the step of:

(d) controlling an upper limit value of a number of retransmissions of the information requested by the retransmission request depending on the multicast information which is distributed from the information distribution apparatus.

6. (Currently Amended) A retransmission control system for a multicast information distribution service which distributes multicast information with respect to a plurality of wireless terminals within a service area from an information distribution apparatus via a wireless region, comprising:

a timing determination means part, in each wireless terminal, ~~for determining~~ configured to determine a timing at which a retransmission request for information which requires retransmission is to be transmitted when the information which requires retransmission is generated;

a first retransmission control means part, in each wireless terminal, ~~for transmitting~~ configured to transmit the retransmission request for the information with respect to the information distribution apparatus at the timing determined by said timing determination means part;

a retransmission control information managing ~~means~~ part, in the information distribution apparatus, ~~for managing~~ configured to manage retransmission information indicating the information requested by the retransmission request after receiving the retransmission request for the information from an arbitrary wireless terminal within the service area; and

a second retransmission control ~~means~~ part, in the information distribution apparatus, ~~for transmitting~~ configured to transmit information related to the retransmission request indicated by the retransmission information to each wireless terminal within the service area at a predetermined timing,

wherein each wireless terminal makes no retransmission request for the information by the first retransmission controls ~~means~~ part if the retransmission information is received before the timing determined by said timing determination ~~means~~ part, so that each wireless terminal receives the information retransmitted from the information distribution apparatus at the predetermined timing.

7. (Currently Amended) The retransmission control system for the multicast information distribution service as claimed in claim 6, further comprising:

a distribution information managing ~~means~~ part, in the information distribution apparatus, ~~for intensively managing~~ configured to intensively manage retransmission requests for the same information made with respect to the same multicast information distribution service until the predetermined timing,

said second retransmission control ~~means~~ part retransmitting information related to the retransmission requests intensively managed by said distribution information managing ~~means~~ part at the predetermined timing.

8. (Currently Amended) The retransmission control system for the multicast information distribution service as claimed in claim 6, wherein:

information which is related to the predetermined timing at which the information requested by the retransmission request is retransmitted, is included in the retransmission information,

said information distribution apparatus notifies each of the wireless terminals within the service area information related to a transmission channel and a transmission timing for notifying the retransmission information and information related to a transmission channel for retransmitting the information requested by the retransmission request, by the second retransmission control ~~means~~ part, and

said first retransmission control ~~means~~ part in each wireless terminal receives the retransmission information based on the information which is received from the information distribution apparatus and is related to the transmission channel and the transmission timing for notifying the retransmission information, and receives the information retransmitted from the information distribution apparatus based on the information related to the transmission channel for retransmitting the information and the information related to the predetermined timing included in the retransmission information which are received from the information distribution apparatus.

9. (Currently Amended) The retransmission control system for the multicast information distribution service as claimed in claim 6, further comprising:

a managing ~~means~~ part, in the information distribution apparatus, ~~for managing~~ configured to manage the information requested by the retransmission request in categories according to a predetermined rule, and managing timings for retransmitting the information for each of the categories.

10. (Amended) The retransmission control system for the multicast information distribution service as claimed in claim 6, further comprising:

a retransmission control information managing ~~means~~ part, in the information distribution apparatus, ~~for managing~~ configured to manage an upper limit value of a number of retransmissions of the information requested by the retransmission request depending on the multicast information which is distributed from the information distribution apparatus.

11. (Currently Amended) A retransmission control apparatus which is provided in an information distribution apparatus which distributes multicast information with respect to a plurality of wireless terminals within a service area via a wireless region and controls retransmission of information, comprising:

a retransmission information transmission control ~~means for notifying~~ part configured to notify retransmission information indicating information requested by a retransmission request with respect to each of the wireless terminals within the service area after receiving the retransmission request from an arbitrary wireless terminal within the service area; and

a retransmission control ~~means for transmitting~~ part configured to transmit the information requested by the retransmission request and indicated by the retransmission information at a predetermined timing, so that each of the wireless terminals determines whether or not to make a retransmission request for the information by referring to the retransmission information notified by said retransmission information transmission control ~~means~~ part when information which requires retransmission is generated.

12. (Currently Amended) The retransmission control apparatus as claimed in claim 11, further comprising:

a distribution information managing means for intensively managing part configured to intensively manage retransmission requests for the same information with respect to the same multicast information distribution service until the predetermined timing is reached,
said retransmission control ~~means~~ part retransmitting information related to the retransmission requests intensively managed by said distribution information managing ~~means~~ part at the predetermined timing.

13. (Currently Amended) The retransmission control apparatus as claimed in claim 11, wherein:

information which is related to the predetermined timing at which the retransmission of the information requested by the retransmission request is made, is included in the retransmission information,

the retransmission control ~~means~~ part notifies each of the wireless terminals within the service area information related to a transmission channel and a transmission timing for notifying the retransmission information and information related to a transmission channel for retransmitting the information requested by the retransmission request, so that each of the wireless terminals within the service area receives the information which is retransmitted, based on the information included in the retransmission information and the information which is notified by said retransmission control ~~means~~ part.

14. (Currently Amended) The retransmission control apparatus as claimed in claim 11, further comprising:

a managing means for managing part configured to manage the information requested by the retransmission request in categories according to a predetermined rule, and managing timings for retransmitting the information for each of the categories.

15. (Currently Amended) The retransmission control apparatus as claimed in claim 11, further comprising:

a retransmission control information management control ~~means for controlling part~~ configured to control an upper limit value of a number of retransmissions of the information requested by the retransmission request depending on the multicast information which is distributed.

16. (Currently Amended) A wireless terminal which receives multicast information distributed from an information distribution apparatus via a wireless region, and receives information retransmitted from the information distribution apparatus according to a retransmission control, comprising:

a timing determination ~~means for determining part~~ configured to determine a timing for transmitting a retransmission request for information which requires retransmission; and

a retransmission control ~~means for transmitting part~~ configured to transmit the retransmission request for the information with respect to the information distribution apparatus at the timing determined by said timing determination ~~means part~~,

said retransmission control ~~means part~~ making no retransmission request for the information if ~~the retransmission information, which indicates that a retransmission request~~ for the information has already been received by the information distribution apparatus, is received from the information distribution apparatus before the timing determined by said timing determination ~~means part~~, so as to receive the information retransmitted from the information distribution apparatus at ~~the~~ a predetermined timing, said retransmission information including timing information indicating the predetermined timing at which the information will be retransmitted.

17. (Currently Amended) The wireless terminal as claimed in claim 16, wherein:
~~information which is related to the predetermined timing at which the information~~
~~requested by the retransmission request is retransmitted, is included in the retransmission~~
~~information; and~~

said retransmission control ~~means~~ part receives the retransmission information based on the information which is received from the information distribution apparatus and is ~~related to the~~ indicates a transmission channel and ~~the~~ a transmission timing for notifying the retransmission information, and receives the information retransmitted from the information distribution apparatus based on the information ~~related to~~ indicating the transmission channel for retransmitting the information and the timing information ~~related to~~ indicating the predetermined timing included in the retransmission information which are received from the information distribution apparatus.

18. (Currently Amended) A wireless base station for distributing multicast information with respect to a plurality of wireless terminals within a service area, comprising:
a notifying ~~means for notifying~~ part configured to notify retransmission information, which indicates that predetermined information ~~is~~ has been requested by a retransmission request, to each of the wireless terminals within the service area, in response to the retransmission request from an arbitrary wireless terminal within the service area, said retransmission information including timing information indicating a predetermined timing at which the predetermined information will be retransmitted.

19. (Currently Amended) The wireless base station as claimed in claim 18, further comprising:

a retransmitting means for retransmitting part configured to retransmit the predetermined information requested by the retransmission request to each of the wireless terminals within the service area, at ~~a timing which can be set arbitrarily~~ the predetermined timing.

20. (Currently Amended) The wireless base station as claimed in claim 19, wherein said retransmitting ~~means part~~ part copes with one retransmission of the predetermined information with respect to a plurality of retransmission requests which request the predetermined information, if the retransmission request requesting the predetermined information is received from one or more wireless terminals within the service area before the predetermined information is retransmitted to each of the wireless terminals within the service area.

21. (Currently Amended) A wireless terminal which is usable within an arbitrary service area, comprising:

a retransmission request means for making part configured to make a retransmission request with respect to a wireless base station when predetermined information which requires retransmission is generated; and

a control means for discontinuing part configured to discontinue transmission of the retransmission request for the predetermined information from said retransmission request ~~means part~~ part when notified of retransmission information which indicates that a retransmission request for the predetermined information is has been made from another wireless terminal within the arbitrary service area at a timing before said retransmission request ~~means part~~ part makes the retransmission request.